


















# 7<sup>th</sup> Geothermal Heat Pump Business and Policy Forum Montréal – May 16, 2014

## Hotel Fairmont – The Queen Elizabeth

|      |                             |
|------|-----------------------------|
| 8h00 | Registration                |
| 8h30 | Welcoming Remarks (PLENARY) |

|               | Session 1 – Track 1  | Session 1 – Track 2   |
|---------------|--|---|
|               | GSHP System Performance Field Measurements   | Ground Considerations and System Performance  |
| 9h00 – 9h05   | <b>Presentation of session's speakers</b>  | <b>Presentation of session's speakers</b>   |
| 9h05 – 9h30   | <p><i>Monitoring a geothermal thermo frigo pump in Lyon during 15 years</i></p> <p> JOSE NAVETEUR<br/>Électricité de France</p>   | <p><i>Insights from field experiments to conduct thermal response tests with a low power source</i></p> <p> JASMIN RAYMOND, P. Geo., Ph.D.<br/>Postdoctoral fellow, INRS</p>  |
| 9h30 – 9h55   | <p><i>A geothermal heat pump provides, since 2005, heating the swimming pool in Moulins – France- Average 2008-2012</i></p> <p> JOSE NAVETEUR<br/>Électricité de France</p>               | <p><i>Measurement uncertainty during the thermal response test and design of an improved equipment for in situ experiments</i></p> <p>DAVIDE ROLANDO<br/>DIBRIS, University of Genoa<br/>and KTH Royal Institute of Technology</p> <p>  JOSÉ ACUNA<br/>KTH Royal Institute of Technology</p> |
| 9h55 – 10h20  | <p><i>The outcomes and lessons learned from the biggest in Europe monitoring campaign of heat pumps in family dwellings in Germany</i></p> <p> MAREK MIARA<br/>Fraunhofer Institute</p> | <p><i>Realistic Design of Parallel Connected Multiple Boreholes for Ground Source Heat Pump Systems</i></p> <p>  PATRICIA MARIA MONZÓ CARCEL<br/>JOSÉ ACUNA, PALNE MOGENSEN<br/>KTH Royal Institute of Technology</p>  |
| 10h20 – 10h40 | Health Break   |   |

|               | Session 2 – Track 1   | Session 2 – Track 2  |
|---------------|---|--|
|               | GSHP System Performance Field Measurements  | Ground Considerations and System Performance   |
| 10h40 – 10h45 | <b>Presentation of session's speakers</b>   | <b>Presentation of session's speakers</b>  |
| 11h45 – 11h10 | <p><i>Results of IEA Heat Pump Program Annex 37</i></p> <p>DR ROGER NORDMAN<br/>IEA Heat Pump Center</p> <p></p>   | <p><i>A new approach to the study of the hydro-thermodynamic system of ground – borehole heat exchanger – ground source heat pump</i></p> <p>EUGENE NIKIFOROVYCH<br/>Institute of Hydromechanics NASU<br/>DR OLGA KORDAS<br/>KTS Royal Institute of Technology</p> <p> </p> |
| 11h10 – 11h35 | <p><i>Heat Pump Monitoring in the UK: The Renewable Heat Premium Payment Scheme</i></p> <p> OLIVER SUTTON<br/>UK Department of Energy &amp; Climate Change</p>                                     | <p><i>Key technology study on thermal balance of ground source heat pump in territories with a cold winter and a warm summer</i></p> <p> (invited) CHAO CHEN<br/>Beijing University of Technology</p>  |
| 11h35 – 12h00 | <p><i>Cross comparison by means of long-term measurements: energy and efficiency analysis of heat pump systems in non-residential buildings</i></p> <p> SIMON WINIGER<br/>Fraunhofer Institute</p> | <p><i>A simple model to account for thermal capacity in boreholes</i></p> <p> VIVIEN GODEFROY<br/>École Polytechnique – Université de Montréal</p>   |
| 12h00 – 13h00 | Lunch   |  |

|               | Session 3 – Track 1   | Session 3 – Track 2  |
|---------------|---|--|
|               | <b>Financial Considerations and GSHP Market Expansion</b>   | <b>Ground Considerations and System Performance</b>  |
| 13h00 – 13h05 | Presentation of session's speakers  | Presentation of session's speakers   |
| 13h05 – 13h30 | <b>Regulation, Contracting and Community-Scale Ground Source Heat Pumps</b><br>THOR JENSEN, HADI DOWLATABADI<br>University of British Columbia                        | <b>Ground Source Heat Pump Using Carbon Dioxide in Phase Change</b><br>MOHAMED OUZZANE<br>Canmet ENERGY / Natural Resources Canada |
| 13h30 – 13h55 | <b>GHG Reduction Opportunity Through Urban Deployment of Ground Source Heat Pump</b><br>BRYAN PURCELL<br>Toronto Atmospheric Fund<br>AMIR NOSRAT<br>ICF International | <b>Optimal Design of Ground Source Heat Pump Systems in the Presence of Groundwater Flow</b><br>METIN OZBEK<br>Environ             |
| 13h55 – 13h20 | <b>How to Include a Commercial Ground Source Heat Pump in a Performance Contracting Project</b><br>LOUIS-MICHEL RABY<br>Johnson Controls                              | <b>Turbulence of the fluid flow and performance of ground heat exchangers</b><br>TIRUPATI BOLISSETTI<br>University of Windsor      |
| 13h20 – 14h50 | <b>Demystifying the carbon market: the state of the situation</b><br>KARINE DESJARDINS<br>National Écocrédit  | <b>The influence of deviating boreholes on the performance of closed-loop GSHP systems</b><br>(invited) GORAN HELLSTROM            |
| 14h50 – 15h10 | Health Break  |  |

|               | Session 4 – Plenary  |  |
|---------------|--|--|
|               | <b>GSHP and Risk Management</b>  |  |
| 15h10 – 15h15 | Presentation of session's panelists  |  |
| 15h15 – 15h40 | <b>Technical risk management from the design to the commissioning, maintenance and operations</b><br>PATRICK LAMBERT<br>GéoÉnergie                               |  |
| 15h40 – 16h05 | <b>Financial considerations and system optimization</b><br>BENJAMIN HENAUULT, PHILIPPE PASQUIER, MICHAËL KUMMERT<br>École Polytechnique – Université de Montréal |  |
| 16h05 – 16h30 | <b>How to risk manage the lack of enforcement of codes, standards and regulations</b><br>JEAN-PIERRE FINET<br>Canadian GeoExchange Coalition                     |  |
| 16h30 – 17h00 | <b>The Top 10 Challenges of the Canadian Ground Source Heat Pump Industry</b><br>DENIS TANGUAY<br>Canadian GeoExchange Coalition                                 |  |



This is a side event to the  
11<sup>TH</sup> IEA Heat Pump Conference

Registration is **FREE** to all those who are registered to the  
IEA conference

To register, please visit the conference website at:

[WWW.IEA-HPC2014.ORG](http://WWW.IEA-HPC2014.ORG)



Official Side Event



**REGISTRATION**  
**7<sup>th</sup> Geothermal Heat Pump Business & Policy forum**  
**Fairmont Hotel**  
**Montréal (Québec) Canada**  
**May 16, 2014**

MR \_\_\_ MS \_\_\_ First Name \_\_\_\_\_ Last Name \_\_\_\_\_  
 Title \_\_\_\_\_ Company \_\_\_\_\_  
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 Province / State \_\_\_\_\_ Postal Code / Zip Code \_\_\_\_\_  
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 Do you have allergies to any foods? \_\_\_\_\_

**REGISTRATION IS FREE FOR ALL THOSE WHO ARE REGISTERED TO THE 11<sup>TH</sup> IEA HEAT PUMP CONFERENCE**  
**PLEASE VISIT THE CONFERENCE WEBSITE AT [WWW.IEA-HPC2014.ORG](http://WWW.IEA-HPC2014.ORG) TO REGISTER**

| Registration Options *       | Base Price / Other countries | NFLD, NB, ON | NS        | QC        | PEI       | BC, MB, SK, AB, YK, NWT, NU |
|------------------------------|------------------------------|--------------|-----------|-----------|-----------|-----------------------------|
| Members **: before April 25  | \$195.00                     | \$ 220.35    | \$ 224.25 | \$ 224.20 | \$ 222.30 | \$ 204,75                   |
| Members **: after April 25   | \$225.00                     | \$ 254.25    | \$ 258.75 | \$ 258.69 | \$ 256.50 | \$ 236.25                   |
| Non-members: before April 25 | \$225.00                     | \$ 254.25    | \$ 258.75 | \$ 258.69 | \$ 256.50 | \$ 236.25                   |
| Non-members: after April 25  | \$260.00                     | \$ 293.80    | \$ 299.00 | \$ 298.94 | \$ 296.40 | \$ 273.00                   |
| Students                     | \$75.00                      | \$ 84.75     | \$ 86.25  | \$ 86.23  | \$ 85.50  | \$ 78.75                    |

**(\*) Registration prices include applicable provincial and federal sales taxes. (\*\*) Members of the Canadian GeoExchange Coalition**

|                         | Quantity | Price | Total |
|-------------------------|----------|-------|-------|
| Conference Registration |          |       |       |

\_\_\_ VISA \_\_\_ MasterCard \_\_\_ Cheque (Made to the order of Canadian GeoExchange Coalition)  
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|  |   |
|--|---|
| Please mail this registration form with your payment to:<br>CGC – GSHP Forum 2014<br>1030 Cherrier – Suite 304<br>Montréal (Québec) H2L 1H9<br>Or fax at : (514) 807-8221<br>Or scan and e-mail to: <a href="mailto:nisha@geo-exchange.ca">nisha@geo-exchange.ca</a> | You may address your questions and inquiries to:<br>Nisha Thiyagarajah : (514)-807-7559 x28<br><a href="mailto:nisha@geo-exchange.ca">nisha@geo-exchange.ca</a> |
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