

Tuesday, February 21, 2023

| | Ballroom O/N | Ballroom L | Ballroom J |
|--|---|---|--|
| ----- 6:30-7:00am Self-Registration Check-In ----- | | | |
| 7:00-8:15 am | What Your Business Needs to Know About the Inflation Reduction Act Peter Lindstrom, Clean Energy Resource Teams | Understanding Thermally Modified Wood Jon Heyesen, Arbor Wood Co.; Matt Aro, UMD Natural Resources Research Institute | Lead-Safe Methods for Remodeling, Repair and Painting Activities Nate Cox, Lake States Environmental, Ltd. |
| ----- 7:30-8:30 am • Registration Check-In ----- | | | EEBA Intro to Building Science |
| 8:30-10:00 am | Heat Pumps 101: Cold Climate Air Source Heat Pumps: A Primer and Launch Pad Dan Wildenhaus and Rabi Vandergon, Center for Energy and Environment | On the Road to Net Zero Energy Homes Patrick Huelman, University of Minnesota | EEBA: Fundamentals of Building Science for High Performance Homes Andrew Oding, Building Knowledge Canada |
| ----- 10:00-10:30 am • Break ----- | | | |
| 10:30 am-12:00 pm | What Matters Most in Determining Heat Pump Application Types Dan Wildenhaus and Rabi Vandergon, Center for Energy and Environment | How I Built a Net-Zero House Amber Westerman, Amber Westerman Building Design | EEBA: Application of Building Science to the Building Enclosure from the Ground Up Andrew Oding, Building Knowledge Canada |
| ----- 12:00-1:00 pm • Lunch ----- | | | |
| 1:00-2:30 pm | Increasing Performance of Forced Air Heating Systems Bruce Stahlberg, Affordable Energy Solutions, Inc. | When the Order Matters: A Roadmap for Retrofit Patrick Huelman, University of Minnesota | EEBA: Application of Building Science to Windows and Heating and Cooling Systems Andrew Oding, Building Knowledge Canada |
| ----- 2:30-3:00 pm • Break ----- | | | |
| 3:00-4:30 pm | Strategies for Heat Pump Adoption at the Time of Air Conditioning Replacement Samantha Hill and Dan Wildenhaus, Center for Energy and Environment | Introduction to Solar Technologies Paul Helstrom, Minnesota Power | EEBA: Mechanical Systems for Hot Water, Indoor Air Quality and Validating Application of Building Science Principles Andrew Oding, Building Knowledge Canada |

Opening Night Reception 4:30-7:00 pm

Join us in the exhibit hall for complimentary snacks and a cash bar. One free drink included with your registration!



Wednesday, February 22, 2023

| | Ballroom O/N | Ballroom L | Ballroom J |
|--|--|--|--|
| ----- 6:30-7:00am Self-Registration Check-In ----- | | | |
| 7:00-8:15 am | High Performance Window Installation Brandon Jordt, Marvin Windows and Doors | Decarbonizing Through Thermal Energy Districts Mindy Granley, City of Duluth; Justin Reid, Duluth Energy Systems | Asbestos--Yes, it's Still Around Bob Rogalla, Lake States Environmental, Ltd. |
| ----- 7:30-8:30 am • Registration Check-In ----- | | | EEBA Accounting for Carbon for Builders |
| 8:30-10:00 am | Systems Thinking and Integrated Design Rachel Wagner, Green New Deal Homes SBC | The Joy of Decarbonizing in Homes Dan Wildenhaus, Center for Energy and Environment | EEBA: Introduction to Carbon Emission Reduction Challenges Andrew Oding, Building Knowledge Canada |
| ----- 10:00-10:30 am • Break ----- | | | |
| 10:30 am-12:00 pm | Extending the Life of a Roofing Assembly Scott Wood, VaproShield LLC | Feeling Hot, Hot, Hot...Water! Dan Wildenhaus, Center for Energy and Environment; Francois Lebrasseur, A. O. Smith; Gregg Holladay, Bradford White Water Heaters; Tim Gaughan, Rheem Manufacturing Company | EEBA: Studying the Impact of Operational Carbon Reductions Andrew Oding, Building Knowledge Canada |
| ----- 12:00-1:00 pm • Lunch ----- | | | |
| 1:00-2:30 pm | Highly Permeable Membranes Allow Vapor Diffusive Drying and Stop Heat Loss Scott Wood, VaproShield LLC | Having Success With Cold Weather Heat Pumps Bill Graber and Jake McAlpine, The Energy Conservatory | EEBA: Embodied Carbon Andrew Oding, Building Knowledge Canada |
| ----- 2:30-3:00 pm • Break ----- | | | |
| 3:00-4:30 pm | A Field Perspective on Balanced Ventilation HRV and ERV Mike Wilson, Dakota Supply Group | Location, Location, Location for EV Charging Jukka Kukkonen, Shift2Electric | EEBA: Cost Effective Decisions to Reduce Carbon Emissions in the Construction Industry Andrew Oding, Building Knowledge Canada |



You must attend the 7:00 a.m. session to receive all seven credits of CEU requirements per day. CEU credit information is located in this booklet. Information is also online at www.DuluthEnergyDesign.com. Please note: Agenda (and presenters) are subject to change on short notice. Thank you!