



Organization of  
American States

**NIST**  
National Institute of  
Standards and Technology  
U.S. Department of Commerce

## Training Workshop on Building Energy Efficiency Systems and Labeling

October 26-28, 2015  
NIST, Gaithersburg, Maryland, U.S.A.



## Taller de Capacitación en Sistemas de Eficiencia Energética de Edificios y Etiquetado

26-28 de octubre, 2015  
NIST, Gaithersburg, Maryland, U.S.A.



## Training Workshop Agenda: Monday October 26, 2015

<i>Day 1 - First Session –Setting the Stage for the Workshop</i>	
<i>Moderator: Magdalena Navarro, NIST</i>	
8:00 am	Transportation from Hotel <b>Meet at hotel lobby, all presentation to be held in West Square</b>
8:15 am	Registration at NIST Visitors Center
8:30 am to 9:00 am	Participant Workshop Registration in West Square
9:00 am to 9:15 am	Welcoming Remarks <b>Willie E. May, Under Secretary of Commerce for Standards and Technology and Director, National Institute of Standards and Technology</b> <b>Juan Cruz Monticelli, Energy Specialist of the Department of Sustainable Development, Organization of American States</b>
9:15 am to 9:45 am	<u>Workshop and Participant Introductions</u> <b>Andrew Persily, Chief, Energy and Environment Division, NIST</b> <b>Ana María Carreño, Manager, Global Best Practices &amp; Latin America, CLASP</b>
9:45 am to 10:15 am	<u>Keynote: Positive Externalities of Energy Efficiency: A Reason for Public Sector Engagement</u> <b>Mariano Gonzalez Serrano, Senior Energy Specialist, The World Bank</b>
10:15 am to 10:45 am	Morning Break
10:45 am to 12:00 noon	<u>NMI Participant Panel: Identifying Issues and Needs for Building Energy Efficiency and Appliance Labeling</u> <b>Co-chairs: Natascha Milesi-Ferretti, NIST</b> <b>Ana María Carreño, CLASP</b> <b>Panelists: Antoinette Johnson Peart, BSJ, Jamaica</b> <b>Leon Lira Cotes, CENAM, Mexico</b> <b>Ruben Neris, INDOCAL, Dominican Republic</b> <b>Javier Arias Real, CENAMEP, Panama</b>
12:00 noon to 1:00 pm	Lunch Break in NIST Cafeteria

<i>Day 1 – Second Session - Building Energy Efficiency Standards, Regulation and Voluntary Programs</i>	
<i>Moderator: Andrew Persily, NIST</i>	
1:00 pm to 2:30 pm	<u>Panel Presentation: From Research to Standards to Regulation</u> <b>Chair: Andrew Persily, NIST</b> <b>Panelists: Stephanie Reiniche, Manager of Standards, ASHRAE</b> <b>Helen Davis, Engineering Manager, Regulatory Affairs,</b> <b>Air Conditioning, Heating, and Refrigeration Institute (AHRI)</b> <b>David Conover, Senior Technical Advisor, Pacific Northwest National Laboratory</b> <b>Brendan Owens, Vice President of LEED Technical Development</b> <b>U.S. Green Building Council (USGBC)</b> <b>Ross Montgomery, P.E., CxA, Fellow ASHRAE</b> <b>Quality Systems and Technology, Inc.</b>
2:30 pm to 3:00 pm	Country Presentations: Related to Building Systems <b>William David Paucar Quinteros, INEN, Ecuador</b> <b>Taneille Davis-Murphy, Bureau of Standards, St. Vincent and Grenadines</b>
3:00 pm to 3:30 pm	Afternoon Break
3:30 pm to 4:00 pm	<u>Moving Beyond Codes – Advanced Energy Design Guides and Zero Energy Buildings</u> <b>Drury B. Crawley, Director, Building Performance, Bentley Systems Inc.</b>
4:00 pm to 4:30 pm	<u>Building Rating Systems and Market Transformation</u> <b>Brendan Owens, USGBC</b>
4:30 pm to 5:00 pm	<u>Truth in Solid State Lighting Labeling</u> <b>C. Cameron Miller, Leader, Optical Radiation Group, NIST</b>
5:00 pm to 5:30 pm	<u>Photovoltaics: Safety and Efficiency Codes, Standards, and Labeling, (Non)Regulation, and Certification Efforts</u>

	<b>Brian Dougherty, Heat Transfer Alternative Energy Systems, NIST</b>
5:30 pm to 7:00 pm	Networking Reception at the Heritage Room
7:00 pm	Transportation to Hotel <b>Meet in front of Administration Building 101</b>

## Tuesday October 27, 2015

<b>Day 2 - First Session – Energy Efficient Building Technologies</b>	
<b>Moderator: Natascha Milesi Ferretti, NIST</b>	
8:30 am	Transportation from Hotel to NIST <b>Meet at hotel lobby, all presentation to be held in West Square</b>
9:00 am to 9:30 am	<a href="#"><u>Measuring and Rating the Performance of Domestic Refrigerating Appliances</u></a> <b>David Yashar, Energy and Environment Division, NIST</b>
9:30 am to 10:00 am	<a href="#"><u>Measuring and Rating the Performance of Residential Air Conditioners and Heat Pumps</u></a> <b>W. Vance Payne, HVAC&amp;R Equipment Performance Group, NIST</b>
10:00 am to 10:30 am	<a href="#"><u>Water Heating Technologies and Ratings</u></a> <b>William Healy, Leader, Heat Transfer Alternative Energy Systems Group, NIST</b>
10:30 am to 11:00 am	Morning Break
11:00 am to 11:30 am	<a href="#"><u>Solar Hot Water</u></a> <b>James Huggins, Technical Director, Solar Rating &amp; Certification Corp.</b>
11:30 am to 12:00 noon	Discussion Panama Program on Building Technologies Ana Cristina Barria, Empresa de Transmision, Panama
12:00 noon to 1:00 pm	Lunch Break in NIST Cafeteria
<b>Day 2 – Second Session –Appliance Standards and Labeling and Analytical Tools</b>	
<b>Moderator: David Yashar, NIST</b>	
1:00 pm to 1:30pm	<a href="#"><u>EPA’s Use of Standards in the ENERGY STAR Product Certification Scheme</u></a> <b>Eamon Monahan, U.S. Environmental Protection Agency</b>
1:30 pm to 2:15 pm	<a href="#"><u>Challenges &amp; Opportunities for Appliance Standards and Labels in Latin America and the Caribbean</u></a> <b>Eric Gibbs, Senior Director, Country Programs, CLASP</b> <b>Ana María Carreño, CLASP</b>
2:15 pm to 2:45 pm	Country Presentations Related to Building and/or Appliance Labeling <a href="#"><u>Leon Lira Cortes, CENAM, Mexico</u></a> <a href="#"><u>Tanielle Davis-Murphy, Bureau of Standards, St. Vincent and Grenadines</u></a>
2:45 pm to 3:15 pm	<a href="#"><u>Harmonization of Standards &amp; Labels: Opportunities and Challenges</u></a> <b>Jenny Corry Smith, Senior Associate, CLASP</b>
3:15 pm to 3:45 pm	Afternoon Break
3:45 pm to 4:15 pm	<a href="#"><u>Overview of the Product Policy Analysis Tool (PPAT) and Case Study</u></a> <b>Amit Khare, Manager, Country Programs, CLASP</b>
4:15 pm to 4:45 pm	<a href="#"><u>Introduction to the Policy Analysis Modelling System (PAMS) and Case Study</u></a> <b>Ana María Carreño, CLASP</b>
4:45 pm to 5:15 pm	Wrap-up discussion <b>Ana María Carreño, CLASP</b>
5:30 pm	Transportation to Hotel <b>Meet in front of Administration Building 101</b>

## Wednesday October 28, 2015

<i>Day 3 - First Session – Measurement, Verification, and Enforcement for Appliance S&amp;L</i>	
<i>Moderator: Andrew Conn, NIST</i>	
8:30 am	Transportation from hotel <b>Meet at hotel lobby, presentations to begin in West Square</b>
9:00 am to 9:30 am	<a href="#"><u>Designing a Robust Compliance Framework for S&amp;L Implementation</u></a> <b>Eric Gibbs, CLASP</b> <b>Ana María Carreño, CLASP</b>
9:30 am to 10:00 am	Country Presentations Related to Measurement Verification & Enforcement <b>Sergio Teliz, UTE, Uruguay</b> Stephen Isaacs, BBSQ, Bahamas <b>Gaspar Gazzaola, INTI, Argentina</b>
10:00 am to 11:00 am	<a href="#"><u>Discussion of the challenges to the implementation of Measurement Verification and Enforcement in Latin America and the Caribbean</u></a> <b>Nicole Kearney, Senior Associate CLASP</b> <b>Eric Gibbs, CLASP</b> <b>Ana María Carreño, CLASP</b>
11:00 am to 11:30 am	Morning Break
11:30 am to 12:00 noon	<a href="#"><u>S&amp;L Program Evaluation and Impact Assessment</u></a> <b>Ana María Carreño, CLASP</b>
12:00 noon to 12:15 pm	Participant Feedback Survey <b>Hratch Semerjian, Chief Scientist Emeritus, NIST</b>
12:15 pm to 1:15 pm	Lunch Break in NIST Cafeteria

<i>Day 3 - Second Session – High Performance Residential Design &amp; Facility Tours</i>	
<i>Moderator: Natascha Milesi Ferretti, NIST</i>	
1:15 pm to 1:45pm	High Performance Building Design, Residential <b>Betsy Pettit, President, Building Science Corporation</b>
1:45 pm to 2:00 pm	Walk to Net-Zero Energy Residential Test Facility, Building 208
2:00 pm to 3:00 pm	Tour: Net-Zero Energy Residential Test Facility <b>Hunter Fanney, Senior Research Scientist, NIST</b> <b>Betsy Pettit, Building Science Corporation</b>
3:00 pm to 3:15 pm	Afternoon Break
3:15 pm to 4:15 pm	Tours of Laboratory Facilities in Building Research, Building 226: Photovoltaic Laboratory, Room B109 <b>Brian Dougherty, NIST</b> Water Heater Laboratory, Room B005 <b>William Healy, NIST</b> Air Conditioner / Heat Pump Evaluation Laboratory, Rooms A114 and A118 <b>W. Vance Payne, NIST</b>
4:15 pm to 4:30 pm	Return to West Square
4:30 pm to 5:00 pm	Discussion of Follow-up Activities <b>Hratch Semerjian, Chief Scientist Emeritus, NIST</b> <b>Eric Gibbs, CLASP</b>
5:00 pm to 5:15 pm	Certificate Presentation <b>Claire Saundry, NIST</b>
5:15 pm	Closing Remarks <b>Andrew Persily, NIST</b> <b>Eric Gibbs, CLASP</b>
5:30 pm	Transportation to hotel/airport <b>Meet in front of Administration Building 101</b>