

April 28, 2015

Manajit Sengupta, Ph.D
National Renewable Energy Laboratory
15013 Denver West Parkway
Golden, CO 80401

Re: Letter of Support for NREL's proposal to SunShot
National Laboratory Multiyear Partnership

Dear Dr. Sengupta,

We the undersigned wish to express our support to NREL's research proposal titled "Solar Resource Calibration, Measurement and Dissemination".

As engineers and architects dedicated to the design and operation of energy efficient buildings, and as researchers and consultants in the field of building energy simulations, we've relied heavily on the meteorological data that has been developed by NREL going back to the 1970's, including the various versions of the Typical Meteorological Year (TMY) weather files and the National Solar Radiation Data Base (NSRDB), as well as other climatological data summaries. We especially look forward to seeing the outcome of several aspects of your proposal pertaining to the following areas:

- Maintenance and upgrading of the Renewable Resource Data Center (RReDC)
- Maintenance and upgrading of the National Solar Radiation Data Base (NSRDB), in particular the new datasets using satellite based models providing accurate grid-based solar data for any location in the United States (as well as international locations if possible).
- Updated and expanded coverage of TMY data sets incorporating the above-mentioned solar radiation data.
- Continuing your research work that is crucial to new ASHRAE standards in climate zone definitions and energy efficiency standards.
- We perceive high value in NREL's updating of its best practice handbook on solar resources for solar energy application as a participant in IEA Task 46.

We believe that continued work by NREL in this proposal is unique and extremely beneficial to the work that we undertake to design, construct, and operate more energy-efficient buildings, and improve our ability to analyze building energy performance. Furthermore, the proposed work also supports other major efforts being undertaken in the setting of building energy performance standards, rating systems, and incentive programs by other organizations such as DOE, ASHRAE, or various utility companies.

Sincerely,

Joe Huang,
Corresponding author

List of all signatories shown on following page:

US signatories

Bass Abushakra, Assoc. Prof., Civil and Arch. Eng. & Construction Management, Milwaukee School of Engineering

Marlin Addison, Arizona State University

Chapin Alex, 3R Building Sustainability

Mike Andelman, Andelman and Lelek Engineering

Charles S. Barnaby, Consultant, ASHRAE TC 4.7 (past chair), TC 4.2, TC 4.1; President, IBPSA; IBPSA-USA Board

Fred Betz, Affiliated Engineers, Inc. ASHRAE SPC 191 Incoming Chair, ASHRAE TC 2.8 Energy:Water Nexus Co-Chair

Mahabir Bhandari, Oak Ridge National Laboratory

Aaron Boranian, Big Ladder Software

David Bradley, ASHRAE, USGBC, WGBA, IBPSA, IBPSA-USA

Judson Brown, PE registered, New York, Alberta and British Columbia, Canada; LEED-AP

Nick Caton, Member IESNA, ASHRAE and owner of Caton Energy Consulting

Melissa Crowe, Engineered Solutions, HVAC Design and Energy Modeling, LEED AP, IBPSA Member

Jill Dalglish, Dalglish Daylighting, IESNA

Charlotte Dean, P2S Engineering Inc.

Larry Degelman, Texas A&M Univ., Degelman Engineering Group, ASHRAE Life Member

Patrick Dolan, ASHRAE, AEE

Paul Erickson, ASHRAE, IBPSA, CIBSE, I2SL, USGBC

Ross Farris, ASHRAE, Glumac, CABEC

Jason Glazer, GARD Analytics, Inc.

Philip Haves, Leader, Simulation Research Group, Lawrence Berkeley National Laboratory

Glenn Haynes, DNV GL

Tianzhen Hong, LBNL Deputy Group Leader, Simulation Research Group, IBPSA-USA Board

Yu (Joe) Huang, White Box Technologies, ASHRAE TC 4.7 Energy Calculations Chair, IBPSA-USA Board

Matt Huffman, Murphy & Miller, Inc. , Chicago Chapter President IBPSA-USA

Tim Johnson, PE, BEMP, LEED-AP BD+C, GGP, CTA Architects Engineers

Nathaniel Jones, MIT

Christopher Jones, P. Engineer

Daeho Kang, NYC College of Technology

Erik Kolderup, Kolderup Consulting, ASHRAE TC 4.7 Handbook Chair, IBPSA-USA Board VP

Steven Konopacki, Energy Services Consultant

Timothy McDowell, Thermal Energy Systems Specialists, LLC

Witte Michael, GARD Analytics, Inc.

Leslie Norford, MIT Dept. of Archi., Member ASHRAE, IBPSA-USA, Am. Meteorological Society

Troy Peters, Wentworth Institute of Technology, SolarShoeBox

Bob Ramirez, Principal Engineer, Itron, Inc. Consulting and Analysis Group

David Reddy, 360 Analytics, ASHRAE Member & SPC209 Subcommittee Chair

Som Shrestha, Oak Ridge National Laboratory

Keith Swartz, Senior Energy Engineer, Seventhwave (formerly Energy Center of Wisconsin)

Paulo Tabares, Colorado School of Mines

Kapil Upadhyaya, IBPSA, USGBC

Alex Vlachokostas, City College of New York

James Woodall, LEED AP BD+C , HCMA Architecture + Design

Canadian signatories

Michel Bernier, Polytechnique Montréal Quebec Canada

Yuxiang Chen, University of Alberta, Canada

Julien Dutel, Bureau de l'efficacité et de l'innovation énergétiques, Quebec, Canada

Michael Kummert, Polytechnique Montréal Quebec Canada

International Signatories

Mohammed ali Alzain, King Abdulaziz University(KAU) Jeddah Saudi Arabia

Jamie Bull, UCL, oCo Carbon Ltd UK

Carlos Krebs, ANTAC, CBCS Brazil

Lisandra fachinello Krebs, ANTAC, FAUrb | UFPEL Brazil

Roberto Lamberts, Federal University of Santa Catarina, Brazil

Julien Marrec, AEE, AICVF (French ASHRAE) and IBPSA-France

Simeon Oxizidis, International Energy Research Centre, Ireland

Parag Rastogi, Ecole Polytechnique Federale de Lausanne (Switzerland), ASHRAE, ASCE

Marcus Rodrigues , UNICAMP-Brazil and University of Southampton-UK

(Ms.) Iara Santos, TUM Germany

Gisele Saveriano de benedetto, maria inez e jose de benedetto ?

Donghyun Seo, Professor of Chungbuk National University, Rep. of Korea

No affiliation given

David Cocking,

Luciana Fernandes,

Thimmanna Harshana,

Shubhra Kothari,

Jeremy Lerond,

Diego Souza caetano,

Norman Weaver,