Bruno C. Grunau, P.E.

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APPOINTMENTS

July 2020 – Current

Regional Director, Cold Climate Housing Research Center, National Renewable Energy Laboratory (NREL) Under the direction of MTES Associate Lab Director, and in collaboration with NREL executive management and staff, provide overall scientific leadership and strategic vision for CCHRC's research programs and center staff in alignment with NREL's core values and culture. Develop strategic and operational plans and monitor performance against goals. Oversee the development, execution, and evaluation of regional center policies, and protocols. Oversee CCHRC's finances, research programs, operations, communications and outreach, human resources, scientific capabilities, capital equipment, and facility infrastructure to meet current program needs and to prepare the center for future opportunities. Establish relationships with private and public sector organizations for collaboration and as potential sources of funding.

June 2019 – July 2020 President, Cold Climate Housing Research Center, Inc. Works with the CEO, COO, and board to establish short and long-term goals, plans and strategies. Responsible for supervising and overseeing the organization's programs and services. Responsibilities of this position include overseeing the development and evaluation of the organization's programs. Works closely with program staff, senior management and executive leadership teams and Board members to achieve the organization's strategic goals.

Jan 2017 – June 2019

Chief Programs Officer, Cold Climate Housing Research Center, Inc. Collaborate with CCHRC management, staff, funders, and partners on all projects from development through inception. Coordinate project development and management needs to effectively advance CCHRC's strategic plan during a time of increasing diversity and quantity of projects.

May 2016 – Current

Senior Research Engineer, Cold Climate Housing Research Center, Inc. In addition to the responsibilities as Research Engineer (described below), responsible for seeking and developing new projects which are consistent with the CCHRC mission. Coordinates and develop project proposals as directed by the CEO.

Jan. 2011 – April 2016 Research Engineer, Cold Climate Housing Research Center, Inc. Responsible for research and testing of building systems for ventilation, thermal and moisture control properties; assists in the design, development, and implementation of product testing.

May 2008 – Jan. 2011

Chief Engineer, Remote Power Inc., Fairbanks, AK. Responsible for design and installation of renewable energy power systems. Integrated data collection system and data telemetry into renewable energy systems. Performed structural analyses on power system infrastructure. Managed renewable energy projects.

May 2002 - April 2008 Test Engineer, HI-TEST Laboratories, Inc., Arvonia, VA. Responsible for design, administration, and execution of military standard shock and vibration tests. Supervised test fixture fabrication, installation, and test operations.

PUBLICATIONS AND REPORTS

Statscewich, H., Weingartner, T., Danielsen, S., Grunau, B., Egan, G. and J. Timm (2011) A High-Latitude Modular Autonomous Power, Control, and Communication System for Application to High-Frequency Surface Current Mapping Radars. *Marine Technology Society Journal* **45** (3), 59 – 68.

Grunau, B. (2013). Subarctic Passive House Case Study: A Superinsulated Foundation and Vapor Diffusion-Open Walls. Fairbanks, AK: Cold Climate Housing Research Center.

Grunau, B. (2014) *Anchorage Foundation Insulation Study*. Fairbanks, AK: Cold Climate Housing Research Center.

Grunau, B. Craven, C. (2015). *Zehnder Comfoair 350: Evaluation for Use in a Cold Climate*. Fairbanks, AK: Cold Climate Housing Research Center.

Stevens, V., Craven, C., & Grunau, B. (2013). *Thermal Storage Technology Assessment: An introductory assessment of thermal storage in residential cold climate construction*. Fairbanks, AK: Cold Climate Housing Research Center.

Stevens, V., Kotol, M., Grunau, B., & Craven, C. (2016). "The Effect of Thermal Mass on Annual Heat Load and Thermal Comfort in Cold Climate Construction". *ASCE J. Cold Reg. Eng.* 2016, 30(1): -1--1

PROFESSIONAL AFFILIATIONS

Ex-officio Member Cold Climate Housing Research Center, 501(c)3 nonprofit, 2020-present.

Member U.S. Arctic Research Commission Arctic, Renewable Energy Working Group, 2016 to

2019

Board of Directors Alaska Center for Appropriate Technology, 2013 to 2017

Member American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE),

2010 to 2019, 2021.

Member, Instructor Shock and Vibration Information Analysis Center, 2003 – 2008

RELEVANT EXPERIENCE

NREL Senior Managers Energy Equity Committee (2020-Present)

NREL Energy and Environmental Justice Presentation Team to Department of Energy's EERE EE-1 (Kelly Speakes-Backman, 2021)

Interim NREL Energy Justice Coordinator (2021 – Present)

Testified before the U.S. Senate Committee on Energy and Natural Resources at a Full Committee Hearing to Examine Renewable Energy and Energy Efficiency Efforts in the U.S., 116th Congress (May 21, 2019)

Testified before the U.S. Senate Committee on Energy and Natural Resources at a full committee hearing to examine Advanced Building Management and Control Systems. 115th Congress (October 31, 2017)

Panelist and Presenter at UNICEF's "International Expert Consultation on Sanitation in Cold Climates" in Ulaanbaatar, Mongolia (2017)

Moderator at The U.S. Arctic Research Commission's "Arctic Sustainable Energy Research Conference" international virtual conference (April 2021)

Member of the Fairbanks Climate Action Coalition Renewable Energy Working Group (2018-2020)