



**Sandia
National
Laboratories**



2024 High Latitude Photovoltaics Workshop Program

Date: March 14-15, 2024

Site: RISE Piteå, Sweden

March 13

7PM Self-pay dinner at Taps& (Källbogatan, Piteå)

Day 1 Time increment **Thursday, March 14, 2024**

Session 1 **Field Trip to Helia Solar Power Park**

8:00 5:00 Meet at Stadshotellet, Olof Palmes Gata 1

13:00 1:00 Lunch Break (included in registration)

14:00 0:15 Welcome Address from Hosts

Anna Malou Petersson

RISE

Sweden

Sandia National

14:15 0:15 Introduction to Workshop Objectives

Joshua Stein

Labs

USA

Session 2 **Country Reports (installed capacity, policies, field performance, issues, etc.)**

Chair: Michelle Wilber

UAF

USA

14:30 0:20 Sweden

Anna Malou

Petersson/Mattias Lindh

RISE

Sweden

14:50 0:20 Norway

Eric Marstein

IFE

Norway

15:10 0:20 Finland

Samuli Ranta

TUAS

Finland

15:30 0:30 Networking Break

Session 3 **Country Reports Continued**

Chair: Michelle Wilber

UAF

USA

16:00 0:20 Denmark & Greenland

Esben Larsen

DTU

Denmark

16:20 0:20 USA

Chris Pike

UAF

USA

16:40 0:20 Canada

Erin Tonita

Univ of Ottawa

Canada

17:00 0:30 Discussion

17:30 1:30 End of Day 1: Break before dinner

19:00 2:00

Workshop Dinner and Reception (Fiore - Stadshotellet Resturant)



| Day 2 | Time increment | Friday, March 15, 2023 | | | |
|------------------|----------------|---|------------------------------------|--------|---------|
| 8:00 | 0:30 | Review/Preview/Themes | Erin Whitney | US DOE | USA |
| Session 4 | | Modeling performance of PV in High Latitude Conditions | Chair: Joshua Stein | Sandia | USA |
| 8:30 | 0:20 | Snow losses and snow loss prediction | Mari Øgaard | IFE | Norway |
| 8:50 | 0:20 | Snowdrift in ground mounted power plants | Iver Frimannslund | NMBU | Norway |
| 9:10 | 0:20 | Bifacial irradiance simulations | Alexander Granlund | RISE | Sweden |
| 9:30 | 0:20 | Networking Break | | | |
| 9:50 | 0:20 | Short timescale solar forecasting/problems with low-quality climate data | Henry Toal | UAF | USA |
| 10:10 | 0:20 | NREL-ANL's South Pole optimization of renewables to power the new telescopes | Silvana Ovaitt | NREL | USA |
| 10:30 | 0:20 | Validation of solar irradiance products in Norway | Heine Nygard Riise | IFE | Norway |
| 10:50 | 0:20 | Networking Break | | | |
| Session 5 | | PV Reliability Issues | Chair: Anna Malou Petersson | RISE | Sweden |
| 11:10 | 0:30 | Snow Loads on PV Roofs and Snow-phobic Coatings | Mattias Lindh | RISE | Sweden |
| 11:40 | 0:20 | Mitigation of Heavy Snow Loads on PV Modules | Tadanori Tanahashi | AIST | Japan |
| 12:00 | 0:20 | PV Module Degradation Rates in Norway | Christoph Seiffert | IFE | Norway |
| 12:20 | 0:20 | Discussion | | IFE | Norway |
| 12:40 | 1:00 | Lunch Break (included in registration) | | | |
| Session 6 | | Panel Discussion: Industry perspectives | Chair: Chris Pike | UAF | USA |
| 13:40 | 1:00 | Moderated discussion about industry perspectives on issues and challenges of high latitude PV deployment. | | | |
| Session 7 | | PV Integration in High Latitudes | Chair: Christie Haupt | UAF | USA |
| 14:40 | 0:20 | Renew Svalbard | Anna Sjöblom Coulson | UNIS | Norway |
| 15:00 | 0:20 | Possibilities of solar PV in the industrial green transition in Northern Sweden | Anna Malou Petersson | RISE | Sweden |
| 15:20 | 0:20 | Solar and EV charging at high latitudes | Michelle Wilber | UAF | USA |
| 15:40 | 0:20 | Forecasting PV Production for Energy Management in Mixed-Use Buildings | Hugo Huerta | TUAS | Finland |
| 16:00 | 0:20 | Discussion | | | |
| 16:20 | 0:30 | Networking Break | | | |
| Session 8 | | Group Discussion - Next Steps | Chair: Erin Whitney | US DOE | USA |
| 16:50 | 1:00 | Guided discussion on next steps and opportunities to for contributing to a review/perspective paper describing the opportunities and challenges of PV in high latitude regions. | | | |
| 17:50 | | End of Workshop | | | |
| 19:00 | | 7PM Self-Pay Dinner at Tages (Hamngatan 60, Piteå) | | | |