

DuraMat Workshop – Identifying Synergies

October 10–11, 2016

National Renewable Energy Laboratory

DuraMat is a national laboratory-led Energy Materials Network (EMN) Consortium aimed at dramatically accelerating the development of new, useful module materials. This workshop will introduce DuraMat and prepare for two types of proposals: 1) industry-led projects, and 2) projects to develop or apply capabilities within the DuraMat Consortium.

Monday, October 10, 2016

Research Support Facility, Beaver Creek X320 A,B,C

12:30 Check-in & Badging

Introduction

1:00 – 1:30 Welcome and DuraMat Concept
Dana Olson, DOE & Teresa Barnes, NREL

1:30 – 2:30 DuraMat Consortium Capabilities Overview

1:30 – 1:35 Capability Network Introduction – Dave Ginley, NREL

1:35 – 1:40 C1. Data Management, Analytics, and Informatics – Anubhav Jain, LBNL

1:40 – 1:45 C2. Predictive Simulation – Randy Schunk, Sandia

1:45 – 1:50 C3. High-Throughput Materials Discovery and Forensics – Mike Toney, SLAC

1:50 – 1:55 C4. Module Prototyping and Accelerated Durability Testing – Peter Hacke, NREL

1:55 – 2:00 C5. Field Deployment – Bruce King, Sandia

2:00 – 2:05 C6. Market Analysis – Mike Woodhouse, NREL

2:05 – 2:10 QESST – Mariana Bertoni, Arizona State University

2:10 – 2:15 BAPVC – Reinhold H. Dauskardt, Stanford University

2:15 – 2:20 NGPV – Kurt Barth, Colorado State University

Capability Areas Identifying Opportunities

2:30 – 2:45 Thermal-Mechanical-Electrical Model for PV Module-Level Mechanical Failure Mechanisms
Scott Roberts, Sandia & Nick Bosco, NREL

2:45 – 3:00 Data2Design for Reliable PV Materials Performance
Amy Sun & Bruce King, Sandia

3:00 – 3:10 Break – Walk to Café

Identifying Partnerships – Poster Session, NREL Café

3:10 – 4:40 Poster Session
National lab, academic, and industry groups present capabilities and discuss potential partnerships.

4:40 – 5:00 Break – Walk to RSF

What does success look like? What opportunities do we see?

5:00 – 5:20 Case studies (Materials and Module Reliability)
John Wohlgemuth, NREL

5:20 – 6:00 Panel and audience discussion: What would success for DuraMat look like? What opportunities do we see?
Jon Previtali, Wells Fargo
Gabriela Bunea, SunPower
Chad Kotarba, First Solar
Michael Bolen, EPRI
Bill Gambogi, DuPont

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7:30 – 8:00 Coffee

Processes for Working Together

8:00 – 8:20 Plan for Selection of Projects
Teresa Barnes, NREL

8:20 – 8:40 Other Management Plans from DuraMat
Teresa Barnes, NREL

8:40 – 8:50 Streamlined IP and Agreements
Bill Hadley, NREL & Mark Hartney, SLAC

8:50 – 9:00 Questions

9:00 – 9:10 Break – Walk to Café

Identifying Partnerships – Poster Session, NREL Café

9:10 – 10:40 Poster Session

10:40 – 11:00 Break (Remove Posters & Walk to RSF)

Closing Session – What did we learn? Suggestions for DuraMat

11:00 – 12:00 Discussion and audience feedback