AGENDA: Workshop on Medium-Voltage Wide-Bandgap Power Electronics for Advanced Distribution Grids

Thursday, April 14

6-9pm Informal Reception at NIST Hilton Restaurant

Friday, April 15 Morning

8:00am Shuttle departs from Gaithersburg Hilton toward NIST

8:30am Convene Workshop in NIST Portrait Room

WBG Device Manufacturing and Supply Chain Integration – Anant Agarwal (DOE AMO)

Goals of Workshop – Al Hefner (NIST)

Panel 1: Grid Power Electronics – Al Hefner

Kathleen O'Brian (GE)

Peter Steimer (ABB)

Fred Wang (UTK)

Geza Joos (McGill U)

30 minute discussion period

10:30am Break

Panel 2: Medium Voltage WBG Devices and Converters Development – Ravi Raju (GE)

Jeffrey Casady (Cree)

Fang Peng (UTRC/MSU)

Dushan Boroyevich (VaTech)

Subashish Bhattacharya (NC State)

30 minute discussion period

12:30pm Lunch

Friday, April 15 Afternoon

Panel 3: Applications of MV Power Electronics for Advanced Distribution Grids – Leo Casey (Google)

Shalom Flank (Pareto Energy)

James Perkinson (National Grid)

Tom McDermott (Pitt)

Alejandro Montenegro (S&C Electric)

30 minute discussion period

3pm: Break

Discussion Session: Identification Early Adopters and Transformative Approaches – Al Hefner

1. What are early adoption opportunities for SiC power devices in medium-voltage distribution grid applications?
2. What transformative medium-voltage distribution grid paradigms might be enabled in the future by pervasive availability of low-cost HV-HF wide-bandgap semiconductors?
3. What near term prototype demonstrations might enable more rapid market adoption of wide-bandgap power electronics in medium-voltage distribution grid applications and more rapid advancement toward new grid paradigms?
4. What are specifications of wide-bandgap power semiconductor modules, passive components, and PCSs needed for these applications?

5pm: Adjourn

Bus Departs from NIST toward Gaithersburg Hilton

Optional Dinner at Dogfish Head Restaurant (across the street from NIST Main Gate)