



U.S. DEPARTMENT OF
ENERGY



NATIONAL
ENERGY
TECHNOLOGY
LABORATORY

Crosscutting Research and Advanced Energy Systems Project Review Meeting Water Management Virtual Session Agenda

All times designated in Eastern Daylight Time

Monday, May 17, 2021

Power Plant Cooling and Condenser Research

Moderator: Jessica Mullen

- 1:00 PM** **Update on In-House Research (FWP-NETL)**
Nick Siefert, National Energy Technology Laboratory
- 1:20 PM** **Advanced Dry-Cooling with Integrated Enhanced Air-cooled Condenser and Daytime Load-Shifting Thermal Energy Storage for Improved Powerplant Efficiency (FE0031979)**
Raj Manglik, University of Cincinnati
- 1:40 PM** **Improvement of Coal Power Plant Dry Cooling Technology Through Application of Cold Thermal Energy Storage (FE0031886)**
Nenad Sarunac, University of North Carolina Charlotte
- 2:00 PM** **Water Recovery from Cooling Tower Plumes (FE0031828)**
Karim Khalil, Infinite Cooling, Inc.
- 2:20 PM** **Enhanced Cooling Tower Technology for Power Plant Efficiency Increase and Operating Flexibility (FE0031833)**
Yaroslav Chudnovsky, Gas Technology Institute (GTI)
- 2:40 PM** **Wastewater Recycling Using a Hygroscopic Cooling System (FE0031810)**
Christopher Martin, University of North Dakota Energy and Environmental Research Center
- 3:00 PM** **BREAK**

Power Plant Cooling and Condenser Research

Moderator: Barbara Carney

- 3:20 PM** **A Novel Steam Condenser with Loop Thermosyphons and Film-Forming Agents for Improved Heat Transfer Efficiency and Durability (FE0031657)**
Richard Bonner, Advanced Cooling Technologies, Inc.

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- 3:40 PM Application of Heat Transfer Enhancement (HTE) System for Improved Efficiency of Power Plant Condensers (FE0031561)**
Noah Snyder, Interphase Materials, Inc.
- 4:00 PM Produced Water and Waste Heat-Aided Blowdown Water Treatment: Using Chemical and Energy Synergisms for Value Creation (FE0031740)**
Mohammad Ahmed and Hunter Barber, West Virginia University Research Corporation
- 4:20 PM Enhancing Steam-Side Heat Transfer via Microdroplet Ejection using Inorganic Coatings (FE0031675)**
Ravi Prasher and Alondra Perez, Nelumbo Inc.
- 4:40 PM Novel Patterned Surfaces for Improved Condenser Performance in Power Plants (FE0031556)**
Ranga Pitchumani, Virginia Polytechnic Institute and State University
- 5:00 PM Capillary-Driven Condensation for Heat Transfer Enhancement in Steam Power Plants (FE0031677)**
Evelyn Wang, Massachusetts Institute of Technology