

2017/2018 Energy Research Grants – Cycle 11

NCESR. The Nebraska Center for Energy Sciences Research (NCESR), a collaboration between the Nebraska Public Power District (NPPD) and the University of Nebraska-Lincoln (UNL), was established in April 2006 to conduct research on renewable energy sources, energy efficiency and energy conservation; and to expand economic opportunities and improve quality of life for Nebraska and the nation.

Goal. The overall goal of the NCESR is to foster research and education in energy sciences by providing funding to support innovative research and collaboration among University of Nebraska-Lincoln faculty and other public-and private-sector organizations and businesses working in energy sciences.

Request for Proposals. The NCESR released the Request for Proposals (RFP) for its eleventh competitive round of Energy Research Grants on April 4, 2016

Selections. The External Advisory Committee (EAC) met on December 9, 2016 and selected the following six energy research projects:

- Storing Renewable Energy for Nebraska and Beyond Using Vanadium Flow Batteries
 - Chris Cornelius, Professor, Chemical and Biomolecular Engineering
- Exploring Microbial Metabolic Diversity for the Utilization of Lignin-Derived Aromatics
 - Wei Niu, Associate Professor, Chemical and Biomolecular Engineering
- Making Light-Weight Mg-Metal Laminated Nano-Composites
 - Jeff Shield, Professor, Mechanical and Materials Engineering
- An Integrated Approach to Improved Wind Forecasting in Nebraska
 - Martha Shulski, Associate Professor, School of Natural Resources
- Self-Assembled Meso-Architectures: Hierarchical Energy Materials from Nanoscale Components
 - Peter Sutter, Professor, Electrical and Computer Engineering
- Structure-Properties-Functionalities of Irradiated Amorphous Ceramics
 - Jian Wang, Associate Professor, Mechanical and Materials Engineering

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