

2018/2019 Energy Research Grants – Cycle 12

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 3, 2017.

Selections. The External Advisory Committee (EAC) met on December 11, 2017 and selected the following five energy research projects:

- Biosynthesis of Novel Polyunsaturated Odd-Carbon Dicarboxylic Acids as New Polymer Feedstocks
 - Liangcheng Du, Professor, Department of Chemistry
- Development of a Hybrid-Electric Powertrain Platform for Off-Road Heavy Equipment
 - Wei Qiao, Professor, Electrical and Computer Engineering
- Microbial Electrosynthetic Conversion of CO₂ and Carbonates into Biogas and Bioproducts
 - Karrie Weber, Associate Professor, School of Biological Sciences
- Conducting Spinel Materials for Energy Storage Applications
 - Xiaoshan Xu, Assistant Professor, Physics and Astronomy
- Photovoltaic Materials and Device Characterization System (Instrumentation Award)
 - Natale Ianno, Professor, Electrical and Computer Engineering

December 2017