

## **2020/2012 Energy Research Grants – Cycle 14**

**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 fourteenth competitive round of Energy Research Grants on April 1, 2019.

**Selections.** The External Advisory Committee (EAC) met on November 7, 2019 and selected the following four energy research projects:

- *Grid Reliability and Resilience Enhancement through Advanced Modeling and Autonomous Grid-Forming Control for Photovoltaic Systems* - Wei Qiao, Professor, Department of Electrical and Computer Engineering
- *Lignin Based Ion Conducting Materials for Energy Conversion/Storage Device* - Shudipto Dishari, Assistant Professor, Department of Chemical & Biomolecular Engineering
- *Selective H<sub>2</sub> Separation Using Mixed Matrix Membranes and Its Utilization* – Chris Cornelius, Professor, Department of Chemical & Biomolecular Engineering
- *Developing a Green Biorefinery Approach for Rural Processing of High-Value Camelina and Sorghum Co-Products* - Ozan Ciftci, Assistant Professor, Food Science and Technology

**Project Period.** Each project is intended to cover the two-year period of January 1, 2020 through December 31, 2021. Funding is provided for the first year. Funding for the second year is provisional and based on project performance.